

What is claimed is:

1    1. A base-station amplifier device for use in amplifying  
2    at least one channel to be transmitted from a base station,  
3    comprising:

4         amplitude limiting means for amplitude-limiting a  
5         base band signal every said channel;

6         high-frequency modulating means for performing a  
7         high-frequency modulation on an output from said amplitude  
8         limiting means every said channel;

9         adding means for adding outputs from all of said  
10      high-frequency modulating means;

11        amplifying means for amplifying an output from said  
12      adding means; and

13        amplitude controlling means for controlling said  
14      amplitude limiting means based on characteristic of said  
15      amplifying means.

1    2. A base-station amplifier device as claimed in claim  
2    1, wherein said amplitude controlling means controls said  
3    amplitude limiting means only when the number of said  
4    channels exceeds a preset number.

1    3. A base-station amplifier device as claimed in claim  
2    1, further comprising detecting means arranged on an input  
3    side or an output side of said amplifying means, wherein  
4    said amplitude controlling means controls said amplitude  
5    limiting means based on characteristic of said amplifying  
6    means and output from said detecting means when output from  
7    said detecting means exceeds a threshold value based on  
8    characteristic of said amplifying means.